

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003527**Date Inspected:** 11-Aug-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2230**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Fu Yu Hong**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

**The QA Ultrasonic testing with Phased Array(UT)**

The QA inspector performed ultrasonic testing (UT) with the phased array (PA) technology after Caltrans representatives performed the preliminary scan with the conventional UT following ZPMC UT procedure for detecting lack of penetration at the junction of deck panels to U-ribs. The QA inspector was performing 100 % UTPA at areas suspected to be crack like indications. The QA inspector confirmed crack like indications as follows:

1. Deck panel DP-076-001, 30 indications were suspected to be crack like indications with the conventional UT and 18 were confirmed with the phased array method (7 indications evaluated by the QA inspector and 11 indications evaluated by the Task Leader Dave McClary) and 2. DP-052-001, 23 were suspected to be crack like indications and 17 were confirmed with the PA method (this deck panel was started with UTPA on 08/08/08 and completed on 08/12/08 because ZPMC positioned another panel over)

Note: 2 Panels were purchased by Caltrans for testing initial procedural development and further procedure development & testing. At the time no writing UTPA procedure have been issued. However, all the test samples identified with the PA method as crack indications were confirmed after macro-etching testing.

**Summary of Conversations:**

The QA inspector did not any relevant conversation on this date.

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## WELDING INSPECTION REPORT

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### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco 858 344-8746, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Acuna,Alfredo	Quality Assurance Inspector
<b>Reviewed By:</b>	Cochran,Jim	QA Reviewer

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